Technology requires electrical power at the subscriber premises for its operation and if so, what is proposed to ensure the continuity of service in case of failure of power supply?

THE MINISTER OF STATE OF THE MINISTRY OF COMMUNICATION (SHRI SUKH RAM): (a) Yes Sir.

(b) Department of Telecom has carried out a detailed technoeconomic feasibility study of employing Optical Fibre Technology in the subscribers loop. A number of field trials have been conducted. These studies have established the techno-economic advantages of using Optical Fibre in the local loop instead of copper cables, for distances greater than 3 kms., where there is justification of more than 400 pairs. The inputs received from the field trials have confirmed the technical superiority of the optical technology.

(c) Yes Sir. A number of trial installations have been commissioned. in the MTNL's customer's access networks in Delhi and Bombay. These trials have established the techno-economic advantages of the new technology.

(d) Comparative figures of budgetary cost of Optical Fibre Technology and conventional copper technology for 480 lines are given below:—

	At 4 km	*At 5 km*
Optical Fibre	*Rs. 97,32,975*	*Rs. 10013595*
Copper Fibre	*Rs. 98,14,877*	*Rs. 11207049*

(e) Electrical power is needed at the remote installation, which is usually the pillar, which can either be on the street or at the premises of a commercial/ private/public buildings. The required electrical power is normally taken from commercial power supply, Protection against power failure is available in the form of battery back up. Beyond the pillar point usually connection to the subscriber is on a copper cable which does not require power at the subscriber premises.

Non-Implementation of Directives By ONGC

*357. SHRI RADHAKISHAN MALAVIYA: Will the Minister of PETROLEUM AND NATURAL GAS be pleased to state:

(a) whether ONGC has received any directive from Government relating to treating the sweeping, cleaning, dusting and watching jobs as permanent nature of duties;

(b) if so, what action ONGC has taken till-date relating to engaging workers on contractual basis for such jobs and their number in various establishments in the country prior to 4th June, 1992 and thereafter; and

(c) whether any complaint has been received by the Ministry for non-implementation of the said orders and if so, what; action has been taken so far in this regard?

THE MINISTER OF STATE OF THE MINISTRY OF PETROLEUM AND NATURAL GAS (CAPT. SATISH SHARMA): (a) to (c). No, Sir. As per the present policy of the Government, the employment of contract labour is not prohibited in sweeping, cleaning, dusting and watching of buildings owned or occupied by the establishments of ONGC.

Digital switching technology

*358. SHRI RATNA BAHADUR RAI: Will the Minister of COMMUNICATIONS be pleased to refer to the answer to unstarred Question 2252 given in the Rajya Sabha on 23rd August, 1995 and state:

(a) what is the number of digital switching technologies besides the C-DoT and E-10-B which DoT has inducted into its network;

(b) what is the total number of lines and value of the equipment of each technology received so far;

(c) which of the suppliers have actually

established manufacturing and and other support facilities in the country and what has been the total investment by each so far in these facilities;

(d) whether Government propose to direct ITI management to explore possibilities of joinging the foreign suppliers in addition to Alcatel to manufacture equipments to these technologies; and

(e) if so, the detials thereof?

THE MINISTER OF STATE OF THE MINISTRY OF COMMUNICATIONS (SHRI SUKH RAM): (a) The following seven new digital switching technologies besides the CDoT and E10B have been inducted by DoT into its network.

	Technology	Suppliers
1.	OCB-283	M/s. ITI & M/s. Alcatel Modi Network Systems Ltd.
2.	EWSD	M/s.HTL & M/s. SEIMENS Ltd.
3.	AXE-10	M/s. Ericsson Telecom India Pvt. Ltd.
4.	FETEX-150	M/s. FUJITSU India Telecom Ltd.
5.	5ESS	M/s. AT&T Switching System India Pvt. Ltd.,
6.	Systems-X	M/s. Intelecom Pvt. Ltd.,
7.	NEAX-61E	M/s. NEC Corporation.

(b) Technology	Equipment received so far in Lakh Lines	Approx. value of equipment Rs. Crores.
OCB-283 of AMNS	3.1	140.1
OCB-283 of ITI	3.73	177.1
EWSD of Seimens	3.7	168.70
EWSD of HTL	1.45	60.9
AXE-10	3.1	140.10
FETEX-150	3.2	144.8
5ESS	1.5	70.0
SYSTEM-X	0.1	4.67
MEAX-61E	0.1	4.67
TOTAL	19.98	911.04

(c) The following suppliers of new technology Switching Equipment have established some manufacturing and support facilities in the Country:—

1. M/s. Alcatel Modi Network Systems Ltd.,
2. M/s. Seimens Ltd.
3. M/s. AT& T Switching India Pvt. Ltd.,
4. M/s. Ericsson Telecom India (P) Ltd.,
5. M/s. Fujitsu India Telecom Ltd.,
6. M/s. ITI Ltd.,

Investment proposed by the above mentioned companies as per the Memorandum filed by them with SIA, Ministry of Industry is as follows:

1. M/s. Alcatel Modi Network Systems Ltd. Rs. 30 Crore
2. M/s. Siemens Ltd., Rs. 51 Crore
3. M/s. AT&T Switching India Pvt Ltd., Rs. 51 Crore
4. M/s. Ericsson Telecom India (P) Ltd., Rs. 41 Crore
5. M/s. Fujitsu India Telecom Ltd., Rs. 56 Crore

The investment made by M/s. ITI Ltd. so far is Rs. 28.23 Crores against the project cost of Rs. 113.60 crores.

M/s. HTL Madras is also setting up manufacturing facilities for manufacture of Digital Switching Equipment in collaboration with M/s. Seimens, Germany with an investment of Rs. 5 crores.

(d) Their is no such proposal at present.

(e) Does not arise.